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As soon as social-democracy extends its work to the countryside, it becomes clear to it that the small holding is not in a process of rapid disintegration, that big holdings are only gaining ground slowly, in places even retreating. The whole economic theory on which social-democracy is founded thus appears false as soon as its application to the domain of agriculture is attempted. As Sombart remarked, the essence of the agrarian question as the social-democrats understand it, boils down to the dilemma-what happens if in the economic sphere there are sectors which do not conform to the laws of socialization, e.g., if the small holding is more productive than the big? 'As far as I know', Sombart writes, 'up to now no one has established with any certainty the tendencies of development of agriculture, or the type of holding which could be characterised as "most advanced", or even whether such a type exists in the field of agricultural production. As far as I can see, this is where the limits of Marx's system lie; Marx's conclusions cannot be transposed in simple form to the domain of agriculture. His theory of development, which predicts the expansion of the big holding. proletarianisation of the masses and the necessity of socialism, holds true in this clear form only for industry'. For over a century economists have concerned themselves with the question of which is best-the big or the small holding? The evolution which agriculture underwent in this period cannot, however, be understood by focussing solely on the struggle of big and small holdings, or by studying agriculture in isolation, independently of the whole mechanism of social production.

Of course, agriculture does not develop according to the same process as industry; it follows laws of its own. But this does not imply that the development of agriculture and that of industry are somehow in opposition or incompatible with one another. On the contrary, we believe that both are developing in the same direction, but to show this we have to regard them as elements of a single process. Moreover, the marxist theory of capitalist production does not reduce the development of capitalist production to the simple formula: 'disappearance of the small holding before the big', as if

such a formula were a key to the understanding of modern economy. To study the agrarian question according to Marx's method, we should not confine ourselves to the question of the future of small scale farming; on the contrary, we should look for all the changes which agriculture experiences under the domination of capitalist production. We should ask: is capital, and in what ways is capital, taking hold of agriculture, revolutionizing it, smashing the old forms of production and of poverty and establising the new forms which must succeed. Only when this question has been answered, can we decide whether Marx's theory is applicable to agriculture or not. Our task is thus defined.

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## The peasant and industry

If we make exception of some of the colonies, capitalist production generally develops first in the *towns*, *in industry*. Though it escapes for a while, sooner or later the character of agricultural production is modified by the development of industry.

The peasant family of the medieval period composed an economic society that was entirely, or almost entirely, self-sufficient, a society that produced not only its own food, but built its own home, furniture and utensils, forged its own implements of production, etc. Naturally the peasant went to the market, but he sold only his surplus produce, and bought only trivialities, except for iron, which he used only sparsely. This self-sufficient society was indestructible. The worst that could happen was a bad harvest, a fire, an invasion of enemy troops. But even these misfortunes were only of passing significance. Reserves built up from the past offered security against bad harvests; from the forest the peasant could extract wood to rebuild his house after a fire.

In our own century it was the conservative economist Sismondi who described with such clarity the comfortable position of these independent peasants whose condition he regarded as ideal. 'The peasant who works his own inheritance with the help of his children, who pays rent to no one, nor employs any one, who subordinates production to his own consumption, who consumes his own corn, drinks his own wine, makes his own clothing, is hardly concerned about market prices; he has little to buy or sell, and he is not affected by the disruptions of commerce . . .' Sismondi was thinking mainly of Switzerland and parts of Northern Italy. Although the picture he drew was not true of all peasants, it was drawn from real life.

But if we now compare it with the present state of the peasantry in Europe—not excepting Switzerland—we cannot fail to acknowledge that a powerful economic revolution has occurred over these sixty years. The starting point of this revolution was the dissolution of small peasant industry brought about by urban industry and trade. This process of dissolution began in the Middle Ages, when small industries first appeared in the towns. But the products of this industry penetrated the countryside only slowly. It required the action of capitalist industry to bring about a rapid destruction of the peasant's domestic industry, and it required the growth of a communications system peculiar to capitalism to break down the insularity of the countryside. In dissolving the peasant's small industry, capitalism increases his need for cash; the peasant requires cash, in these new conditions, to purchase not only his luxuries but even those goods which are essential to his consumption. Parallel to this, the cash requirements of the peasant's overlords also increased, and led to the substitution of payment in kind by payment in cash and to a general rise in the level of payments (thus increasing the peasant's own requirements of cash even further). The only means available to the peasant of earning this cash was the sale of his products, not, of course, those which he produced in his backward home-based industry, but those which the industry of the towns did not itself produce. In this way the peasant was finally forced to become what we today understand by 'peasant'—a pure agriculturist. The further he was forced into this specialization, the wider became the gulf separating industry and agriculture.

Against this new dependence on the market, the peasant had no 'reserves' to fall back on. He had no means of preventing a fall in prices, or of selling grain for which there was no demand. In former times, good harvests were a blessing; now they became a scourge. This became especially clear early in the 19th century; by this time commodity production was the prevalent form of agricultural production in western Europe, but communication was still difficult and not sufficiently developed to establish an equilibrium between the over-production of one district and the scarcity of another. Just as bad harvests pushed prices up, good ones forced them down.

The more agriculture developed a commodity character, the greater became the distance separating him from his market, the more dependent the peasant became on an intermediary. The merchant found a place between the producer and consumer. Side by side with the merchant came the usurer; in bad years the peasant's cash receipts were not sufficient to cover his requirements of cash; he was therefore compelled to borrow. Exploitation by usurer capital was established on this basis; what even the worst harvest or epidemic had failed to achieve in the past—the peasant's alienation from his land, his conversion into a proletarian—became possible now whenever the markets for grain and beef entered a crisis.

The growing shortage of land to meet his family's consumption

(in the given conditions of production) coupled with the appearance of seasonal unemployment following the dissolution of domestic industry compelled the peasant to reduce the size of his family to a minimum (disposing of them as farmhands, soldiers, factory workers, etc.). The employment of thrashing machines to perform a task which had formerly absorbed a substantial amount of labour in the winter months reinforced this tendency. But those who remained on the farm could not compensate for this withdrawal of labour, when labour was required in large quantities in the summer months-however hard they worked. Thus they were compelled to employ seasonal workers, who were themselves drawn from the peasantry and consisted of peasants seeking additional income or of the redundant sons and daughters of the peasant.

The same development which on the one hand creates a demand for wage labourers, creates, on the other hand, these wage labourers themselves. It proletarianises masses of peasants, cuts down the size of the peasant family and throws the redundant members on the labour market. Finally, this process enhances the peasants dependence on subsidiary sources of income: as they find it impossible to earn an income from the sale of agricultural produce, they sell their labour power, Up until the 17th century we only rarely encounter day workers or farm hands. Their employment becomes widespread around this time. As wage labourers come to replace the family members who have left, the condition of the others, who stay behind, deteriorates to the level of wage labour, subordinated to the head of the family. The old society centred on the self-sufficient peasant family is thus replaced by troops of hired labour engaged on the big peasant holdings. This process began, as we said, already in the middle ages, but it became dominant only under capitalism. It continues today, invading new regions, converting subsistence production into commodity production, enhancing the peasant's cash requirements in the most diverse ways and replacing family labour by hired labour. Thus the growth of capitalism in the towns is by itself sufficient to transform completely the peasantry's established way of life, even before capital has itself entered agricultural production and independently of the antagonism between big and small holdings. But capital does not confine itself to industry. When it is strong enough, it invades agriculture.

# Agriculture under feudalism

To each mode of production corresponds a maximum level of population which can be fed within a definite territory. It is possible

that at the time of their migrations the Germans had reached this limit and that the pressure of overpopulation pushed them into the Roman Empire; but this is a point open to discussion. What is certain, however, is that due to the transition to the higher mode of production which their contact with the Romans produced, the food resources at the disposal of the German peoples increased considerably in the period following the migrations. Once peace was restored, the population grew rapidly, and new lands were continually brought into cultivation. The collapse of German power in Poland in the 15th century marked the end of the process of German colonisation in the east. About this time the population of the middle reaches of Europe had expanded considerably, if not actually reached the limits within the given mode of production. Land became scarce. This process induced the most bitter and violent conflicts between the peasantry and feudal nobility, from which the latter emerged, almost everywhere, the victor. The triumphant nobility took up commodity production in a unique combination of feudalism and capitalism. On its huge estates it began to produce surplus value, but on the basis of feudally-subjugated forced labour. Forestry lent itself best to feudal-capitalist exploitation1 to the bulk production of commodities. As soon as urban expansion increased the demand for wood, the lords made a drive to acquire the forests, either by dispossessing the land-communities or by restricting the peasant's rights of usage.

If in areas where a market for wood existed, it was not difficult to convert forests into private property, administered on capitalist lines, but still under feudal forms, it was no less easy, where the market for pastoral products (specially wool) expanded and where natural conditions were favourable, to pass over to livestock production on a capitalist basis; like forestry, livestock production is neither labour-nor capital-intensive, and involves few complications. This form of extensive production requires only private ownership of large pastoral tracts, which the lords made every effort to acquire in the course of the 15th and 16th centuries in England

and Spain, later in northern Germany.

The trend of growing production for the market compelled the feudal lords to expand their own estates at the expense of peasant land, either by circumscribing more narrowly than before the limits of the common lands, or directly by expelling peasants; and, on the other hand, to exact more from the peasantry in the way of dues. Thus even before population pressure really built up beyond a critical point, the resources available to the peasantry in the form of arable and pasture land were progressively shrinking. The profound changes which this introduced into the peasant's way of life were already clear in the matter of his diet. The level of meat consumption in the earlier period is indicated by Kloeden's calculation that at Frankfurt-on-Oder annual per capita meat consumption was 250 lbs c. 1308 for Breslau in the 1880s the corresponding figure is only 86 lbs. In the course of the 16th century the German peasant became progressively impoverished and eventually ceased to consume meat. Both the intensified exploitation of the peasantry due to heavier dues and the decline in stockraising had adverse effects on the peasant holding—either because of a smaller supply of manure at a time when intensive cultivation was becoming more necessary than ever as agriculture was being forced to increase its own supplies to the towns, or because the enhancement of labour-rent (cervées) diverted the peasant's labour time and draught resources from his own holding. The progressive soil exhaustion which this produced meant that the peasant could just survive in good years, and was now bound to be ruined in bad ones. Bad years in fact became more frequent: for example, between 1698 an 1715 the population of France declined from 19 to 16 millions due to repeated crises. The persistence of heavy feudal levies led to a flight of the peasantry into wage labour or beggary. By 1750, as Quennay observed, a quarter of the arable land was uncultivated; immediately before the French Revolution, according to Arthur Young, the uncultivated portion reached one third.

The growing pressure of population had already led to a more intensive mode of cultivation in England. Side by side with this process, the abandonment of the traditional mode of exploitation was accelerated by the appearance of a big peasantry with marketable surpluses. For this stratum the reservation of land for common pasturage appeared as a criminal waste. To effect the transition from this system it became necessary to break up the medieval compromise between communal and private property, to establish the dominance of private property, divide up common pasture, suppress communal rights of usage and consolidate holdings into continuous stretches of land under the landowner's complete control. Yet the rural population itself produced no class which could carry through this revolution in the conditions of rural property.

In modern social conditions, the development of agriculture loses its former independence and becomes bound up with social development as a whole. The revolutionary impetus which agriculture itself failed to produce was thus provided by the towns. The economic evolution of the town had totally transformed the economic situation of the countryside and prepared the ground for a transformation in the conditions of rural property. In the course of this evolution the towns saw the birth of new classes which set

themselves in revolutionary opposition to feudal power and carried through a political and juridicial revolution in the countryside, sometimes despite the peasantry. In France this transformation bore the character of an illegal and violent act which in one blow both abolished the feudal charges on the peasantry and distributed land formerly included in the domains of the clergy and (now emigré) nobility. In Prussia, as in Germany in general, the change occurred in a peaceful and legal fashion, through the agency of a hesitant bureaucracy which proceeded slowly and ensured that the peasants paid dearly, to state and nobility, for the abolition of the dues imposed on them (on one estimate, payments may have totalled 3 billion marks). The modernisation of agriculture followed a similar course in Russia after the Crimean War. The peasants were relieved both of serfdom and of the better part of their land. But regardless of the pacific and legal character which it assumed in these cases, the revolution in property resulted in establishing the dominance of private ownership of the land. That is, the way was now open for the rise of agricultural capitalism.

## Modern agriculture

In the course of the 19th century, technical improvements in the raising of livestock-a sector which expanded rapidly in the early part of the century, favoured by the expanding urban market for meat and by low transport costs—coupled with the adoption of improved methods of farming expanded acreage under cereals, and made higher yields possible (due to the increased supply of manure and draught animals)—in France, for example, the average yield of wheat per hectare rose from 10.2 hectolitres in 1816-20 to 15.8 hectolitres by 1891-95. The trend of rising productivity was reinforced by the shift to more rational cropping patterns (based on a infinite number of combinations, such as cereals-tobacco, cereals-rapeseed) and paralleled by the increasing specialization of agricultural production within its different branches and between them. Where conditions were ripe, this growing division of labour led back to the production of livestock, but now on a higher, more intensive basis, and in a capitalist form (cf. the south of England). Superimposed on this growing overall specialization of agricultural production was the intensified specialization prevailing within the enterprise itself. In feudal agriculture, big holdings had been no different from small ones in this respect. The lords derived the greater part of their labour and equipment from the enserfed peasantry; the difference consisted, not in the serfs' greater specialization, but in the fact that the serfs showed far less enthusiasm in the execution of their tasks on the demesne than they

did in the cultivation of their own farms. Big holdings could develop a division of labour qualitatively superior to that prevailing on peasant farms only in modern conditions, where on big holdings as on small, production is carried on with the propietor's own

implements, draught animals, workers, etc.

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The growing specialization of agricultural production enchances the peasant's dependence on the market. He is now compelled to buy on the market not only his means of production, but even a part of his subsistence. In particular where increasing specialization displaces the production of cereals to second place, he is forced to buy grain or flour on the market. Growing specialization increases the volume of market transactions in seed and draught animals. Finally, the revolution in means of transport increases this dependence on the market and produces incessant changes in the market conditions which peasants face. As an inter-regional transport network develops on top of the sporadic rail connections linking this or that isolated region to the world market, the relative profitability of one branch of production, e.g., cereals, collapses, while that of another, e.g. dairy products, increases. The revolution in transport introduces new seed varieties from other countries, and widens the boundaries of the trade in horses, cows, etc. But the modernization of agriculture reaches its high point only when the latest achievements of engineering, chemistry and biology are introduced into the countryside from the towns.

First in importance is the production of machinery for employment in agriculture. Despite the obstacles which it encounters in agriculture (the high technical base which it presupposes, low utilisation rates, low agricultural wage rates, its greater requirements of skill), the employment of machinery has expanded rapidly on the continent and in Britain, where it started and the USA. However, the situation in Germany is less favourable than in either of these countries. In the west and south the land is too fragmented; in the east, where big holdings predominate, the standard of living and level of education of the agricultural labourers is quite low and the enterprises producing machinery dispersed over large distances. The most favourable situation prevails in Saxony, where big holdings are combined with an intelligent working population and numerous machine shops.

Machinery has several advantages, apart from the obvious one that it saves labour. Machines like threshers and reapers save time as well, and in a context of expanding commodity production economy of time is of considerable importance. Savings in labour and time also increase the independence of the producer vis-à-vis his workers, who generally advance their highest wage claims during the harvest, when they are least dispensable. It is, for example, not uncommon even for

farms which use wage labour for reaping to be equipped with reapers solely as a precaution against strikes. In his book on the Silesian and Polish workers who search for employment in Saxony, Karger reports that all the big sugar estates of this province are equipped with reapers, chiefly as a means of preventing workers from going on strike. Further, machinery can execute tasks which are either difficult to perform, or are generally not performed, manually, e.g., deep ploughing which has become more common now due to steam-ploughs, the use of which, according to Perels, raises crop yields and ensures speed of operation. Steam ploughs are widespread on the big holdings of the province of Saxony, and are becoming more widespread on the big estates in Austria and Hungary. In Prussia there has been a prodigious growth in the employment of steam-driven machinery of various categories. More spectacular are the achievements in the field of electrical machinery, which in practice has meant mainly the electrical plough.

In the space of a few years, due to the increasing employment of machinery, the expansion of electricity in the countryside, the development of a railway network for the long-distance transportation of goods of a low specific value (straw, fertiliser, etc.), improvements in irrigation, drainage and fertiliser technology agriculture has become one of the most revolutionary, if not the most revolutionary of all modern forms of production. A final symptom of the increasingly scientific character of modern agriculture is the expansion of various institutes specializing in agronomy, the growing complexity of the courses taught in them. and the penetration of agronomy, as a specific branch of science, into the established universities in Germany, Austria, France, Italy, etc. The teaching of agriculture in the cities is the most striking illustration of its complete dependence on the town and of the seminal role of the town in stimulating the progress of agriculture. The tight alliance of science and business which characterizes the whole modern system of production is nowhere expressed more sharply than in agriculture.

The capitalist character of modern agriculture: value, surplus value, profit

In modern conditions agricultural production is impossible without money, or, what amounts to the same thing, without capital; in the modern organization of production, any sum of money which is not used for personal consumption, can become, and generally does become, capital, or value which produces surplus value.

Modern agricultural production is capitalist production. In it occur the specific features of the capitalist mode of production, but under special forms. To understand these forms, we shall make a slight digression at this point into the realm of economic abstractions, so that our own theoretical position, based on Marx's theories of value, surplus value, profit and ground rent, may be clarified.

When we look at modern agriculture, two basic characteristics immediately strike us: individual ownership of land, and the commodity character of its products. Here we are concerned only with the second. A commodity is a product of human labour that has been produced not for the consumption of the producer himself or of his retinue, the producer having no need of it, but for a process of exchange. In a system of developed commodity production, each commodity possesses a fixed exchange value. The particular sum of money, or cash, which exchanges for a given commodity, is called the price of that commodity.

The value of a commodity expresses itself only as a tendency or a law which tends to govern the phenomenon of exchange or sale. The result of this phenomenon (sic) is the real exchange relationship at any particular moment, i.e., the real price. The labour theory of value, according to which the value of a commodity depends on the amount of labour that is socially necessary for its production, is fiercely resisted in modern university courses. But if we examine the question more closely, it should become clear that all the various objections spring from a confusion of commodity values on the one hand with use value, on the other with price. The established university theories of Value end up by conceiving the utility of a product and the demand for it as constituents of its value, and both are thus juxtaposed with the labour embodied in it. But use value is a precondition of commodity value, not the factor which determines the amount of this value. The condition of each act of exchange is that any two commodities should be different in nature: unless this holds true, there would be no basis for exchange. But between the use values of any two commodities different in nature there cannot obtain a quantifiable relationship. When I say, a yard of cloth has a value ten times that of one pound of iron, it would be absurd to think that this means that it is ten times more useful, or satisfies ten times as many wants.

What holds true for utility of a greater or lesser order holds true, equally, for wants of a greater or lesser order. Variations of supply and demand can, of course, explain why the price—note that I do not say 'value'—of a given commodity can rise or fall from one day to the next: but they cannot themselves explain why there should be a constant relation between the prices of two sorts of commodities, why, for example, for several centuries, and despite numerous oscillations, a pound of gold possessed an average value thirteen

times greater than a pound of silver. The only explanation is that for several centuries the conditions of production of these two metals remained more or less constant. It would be ridiculous to argue that the demand for gold was always thirteen times greater than the demand for silver<sup>2</sup>.

Simple commodity production is the primitive type of this form of production. It is characterized by the fact that under its regime the producers are not only free and equal vis-à-vis one another, but owners of the means of production which they operate. But simple commodity production has never prevailed in its pure form, no more than any of the other epochs of economic development: it has always mixed with other economic forms, such as natural economy (where the goal of production is the producer's immediate consumption), feudal economy, the economy of trade guilds. Likewise, the law of value was not always fully effective: it became effective precisely to the degree that, within the given limits, there developed a regular production for the market on the basis of free competition. At a certain stage of development, capitalist commodity production replaces simple commodity production, that is, the worker ceases to be the owner of his means of production. The capitalist stands opposed to the worker, who has lost his property; the worker can no longer work directly for the consumer; he has to work for the capitalist employer, owner of the means of production, to whom he sells his labour power; he becomes a hired worker.

Only when production is organised on this basis does commodity production become the dominant form of production: the natural economy disintegrates rapidly, exploitation on a feudal or guild basis is no longer possible, producers are free and equal. But precisely this organisation of production, which creates the conditions for the unfettered operation of the law of value, produces, between value and market price, an intermediary which masks the law of value and modifies its effects, namely, the costs of production, or money expenditure necessary for the production of a commodity. Under simple commodity production it would make no sense to have commodity prices determined as a function of costs of production. Take a rural weaver who produces his own raw material and manufactures his own loom. In his case no expenditure is involved; his product costs him only his labour. Fixing prices according to costs of production does not seem so absurd in the case where, as a consequence of the division of labour, the producer purchases his means of production. As with the weaver in our first example, when weaving is carried on on a professional basis the value of the cloth is likewise determined by the socially necessary labour time involved in its production; but this is no longer so apparent. The

professional weaver produces meither the thread nor the loom; he buys them. Their value constitutes his costs of production, and these enter into the value of the final product, the whole of the value of the thread and part of the value of the loom. But these costs of production do not compose the total value of the cloth; to obtain its total value, we have to add to production costs the value created by the weaver's labour. The matter is entirely different under capitalist commodity production. The owner of the means of production and the worker are two distinct persons. The capitalist who wishes to start production must buy not only the raw materials and instruments of labour, as with the weaver in our second example, but the worker's labour power as well. Of course, for the capitalist all the elements of production resolve themselves into money expenses, or costs, but this is true only of the capitalist. The production of commodities does not cost him labour, but money; for him it is the costs of production, the money he has spent, which determine the price, not the labour expended. Now the real costs of production do not exhaust the costs of production which the capitalist takes into account when calculating his prices. If the price of his commodity were equal to the sum of money which he advances by way of expenditure on production, he would gain nothing from its sale. Profit is the goal of capitalist production. If an investment yields no profit, it would be better for the capitalist to spend the same amount on his personal consumption. It is precisely the profit which makes a certain sum of money capital. Capital may be defined as any sum of money advanced to yield a profit. The capitalist therefore adds to his total costs of production a certain increment. What he means by 'costs of production' are his outlay on production plus the average profit; he calculates the price of his commodity according to costs defined in this way. Adam Smith had already made the distinction between labour value which regulates the fluctuations of market prices under simple commodity production, and the modification of value, under capitalism, by the costs of production or natural price (not value, as Brentano imagines), i.e. what Marx calls the price of production. The progress that political economy has made in the modern universities over the 'outdated' economists like Smith is evident in the fact that after confusing simple commodity production and capitalist commodity production, it goes on to confuse value, natural price and market price, and asserts that the classical theory of value must be abandoned because 'natural value' does not explain price movements.

In Ch. 7 of Book One (Wealth of Nations) Smith states that in any given country there is an average rate of wages, profit and rent; he calls these average rates, natural rates. Like value, the 'natural' rate of profit only exists as a tendency; just as prices gravitate towards value, profits gravitate toward the natural or average profit. But what determines the sum of this 'natural' profit? Here neither Smith nor Ricardo nor any of the bourgeois economists tell us anything: they resort to factors like the degree of risk, the level of the wage rate, and so on, but these factors only explain the margin separating actual profits and average profits, just as supply and demand only explain the margin separating market price and value or price of production; they do not explain the average rate of profit at any given moment; they provide an explanation as to why the rate of profit is 19% here or 21% there, and not the average rate of 20%, but what they do not explain is why the average rate is 20% and not 200% or 2000% for example. Marx was the first to provide an explanation with his theory of surplus value. Of course, Marx was not the first to discover the fact of surplus value (you can find it in Ch. 6, Book One, of the Wealth of Nations). But he was the first to show in a detailed and systematic way how surplus value is generated and how it functions, and all the discoveries of Menger and his

colleagues put together will not change that.

Surplus value arises from the fact that at a certain stage of development of technique man's labour power can produce a sum of products greater than that necessary for his own preservation and reproduction. Under simple commodity production this net product takes the form of commodities, but we could not call it surplus value as yet, because at this stage the human labour power which generates values does not itself possess a value, as it is not yet a commodity. In this case the surplus product accrues to the worker, and he can use it to augment the well-being of his family, to build up reserves, and so on. A part of the net product is alienated by way of payment of dues and interest charges. Under simple commodity production merchant's profit results from the sale of commodities above their value and from the fact that they are bought below their value. As competition intensifies and the situation of the producer becomes more vulnerable, this source of profit becomes more widespread. We are already on the threshold of capitalist production when we reach this stage. It is not difficult to see that instead of extorting products from the producer below their value, the merchant may prefer to exploit the worker's precarious situation to convert him into a hired labourer, i.e., one who produces commodities no longer on his own account, but for the capitalist and one who earns his living not from the sale of his produce, but from the sale of his labour power. Labour power becomes a commodity and acquires a value equal to the value of the subsistence necessary for its reproduction. The surplus of value which the worker produces over and above the value of his own labour power is thus surplus value. The whole of this surplus value accrues to the capitalist when the price of labour power, the wage, is fixed according to its value.

In industry the entire product generated by hired labour accrues to the capitalist. The value of this product is equal to the value of the means of production employed plus the value of the worker's labour power (in common language, his wage) plus surplus value. It is this last component which constitutes profit. But the transformation of surplus value into profit is an even less simple operation than the transformation of value into price. What the capitalist advances in production is not labour, but capital. To him profit appears not as the product of the surplus labour of his workers, but as the product of his capital. He calculates the rate of his profit not according to the quantity of labour employed, but according to the sum of capital advanced. It follows that at a given and uniform rate of surplus value, different capitalists will realise different rates of profit according to the different sums of capital advanced. Suppose there are 3 enterprises with a uniform rate of surplus value, a uniform period of circulation of capital and identical quantities of variable capital; suppose that they are distinguished only by the amount of constant capital they employ. The first has an exceptionally low constant capital, the second an exceptionally high constant capital (e.g. a chemical factory which employs relatively few workers) and the third an average constant capital. We make one final assumption, namely, that the entire amount of the constant capital is consumed in the course of a year and reappears in the value of the final product. Then assuming that each enterprise employs 100 workers at a wage of 1000 francs, that the rate of surplus value is uniform at 100%, but that the constant capital becomes progressively larger as we go from the first enterprise (say a timber yard) to the one with average constant capital (e.g. a factory producing furniture) and from there to the third enterprise (a chemical factory); by the amounts shown below:

Enterprise		Capital	si sa Santa		Surplus value to total capital
	Vairable	Constant	Total		
Α	100000	100000	200000	100000	1/2
В	100000	300000	400000	100000	1/4
C	100000	500000	600000	100000	1/6

If commodities sold at their value, A would realise a profit of 50%, B a profit of 25%, and C a profit of 16.6%. The supreme law of the system of capitalist production, namely, the equality, not of men, but of profits, would be violated here in the most blatant manner. Capital would avoid branch C like the plague, and rush

headlong into branch A. In branch C supply would fall and prices would consequently surpass value; the reverse would take place in branch A, and finally prices in A and C would attain a level at which they would yield the rate of profit in B. This rate of profit is the average rate which determines the price of production. Then we shall have:

Enter- prise	Total capital	Surplus value	Total value of the produce	Rate of profit (& profit)	Total price of product- ion of the product
A	200000	100000	300000	25%(5000)	250000
В	400000	100000	500000	25%(100000)	500000
C	600000	100000	700000	25%(150000)	750000
	1200000	300000	1500000	25%(300000)	1500000

A certain margin thus separates prices of production as determined by 'costs of production' from the value of the product, but this margin does not abolish the law of value, it merely modifies it. This law remains the regulator operating behind prices of production, and it remains completely valid for the total mass of commodities and the total mass of surplus value. It constitutes the solid foundation both of prices of production and of the rate of profit, without which neither of these would be founded on anything.

## Differential rent, absolute rent

Besides the 'normal' profit, capitalists can realise surplus profits, e.g. when thanks to exceptionally efficient machinery (which only they possess) they produce below the prices dictated by the normal conditions of production. Suppose there are two capitalists, whom we can call Muller and Schulze respectively. Muller produces, with the average sort of machinery, 40,000 pairs of shoes each year on a capital of 320,000 frs. At an average rate of profit of 25% Muller would have to fix the price of his shoes so as to obtain a profit of 80,000 frs., otherwise he will regard the business as a loss. His total price of production would thus be 400,000 frs., each pair of shoes selling at 10 frs. On the other hand, thanks to his excellent machinery, Schulze produces 45,000 pairs for an identical investment. For him the unit price of production is not 10 frs. but 8.00 frs. But he is free to sell his shoes at the normal production price, like his competitor, i.e., 10 frs. So he receives 450,000 frs., that is, apart from his usual profit of 80,000 frs., he receives the tidy sum of 50,000 frs. by way of 'surplus profit'.

Now we can transpose this to agriculture. Instead of two factories we can imagine there are two fields (each of 20 hectares for example) of unequal fertility, both exploited on a capitalist basis. Both comprise an identical investment, 3200 frs., but one produces 400 quintals of wheat, the other 450. Then assuming an average rate of profit of 25%, the first capitalist would have to raise the unit price of his wheat by 2 frs. (to make 10 frs. per quintal) if he is to realise a normal profit. His price of production will be 10 frs. and his profit 800 frs. The second capitalist also sells his wheat at 10 frs. per quintal, for which he receives a total of 4500 frs., and realises, as a result, apart from his average profit, a surplus profit of 500 frs.

On the surface the two cases seem identical, but there is a basic difference. In agriculture this type of profit is subject to very special laws, and constitutes a specific category of political economy—ground rent.

The land, in which we include the productive forces that are indissolubly tied to it, is in fact a means of production of a very special type. Its quantity cannot be increased at will, and its quality varies from one instance to the next; furthermore, the particular qualities of a given piece of land are specific to it and cannot be transferred at will. (In each of these respects land and machinery are quite different therefore. Due to the mobility of capital, in industry a surplus profit is an exceptional and transitory phenomenon. The situation is different in agriculture where surplus profit flows from the different fertility of different pieces of land. This inequality is determined by natural conditions and, given the level of technique, is a fixed quantity. Even supposing all other conditions of production were identical, there would still remain this difference in the quality of the soil. Ground rent is for this reason not, as in industry, a transitory phenomenon, but one which persists. In the second place, in industry price of production is determined, as we saw, by the normal profit plus the average costs of production. Enterprises which produce at below average costs realise a super profit. In agriculture, on the other hand, cost price is not determined by necessary costs of production on an average land. The capitalist seeks, apart from his cost price, an average profit. He will not therefore cultivate land of less good quality except under certain conditions, i.e., when the volume of supply is such that the price of food is sufficiently high to promise an adequate return even when land of less good quality is cultivated. In other words, in agriculture the price of production is determined not by the necessary costs of production on an average land, but by those prevailing on land of the worst quality.

From these two differences there springs a third one. As industry expands, population and thus the demand for foodstuffs

also expand. New land has to be brought under cultivation. From this it follows that in the normal course of economic development differences in fertility between different pieces of land under cultivation will tend to increase, and, as a result, so will ground rent.

We can show this with a few numerical examples. Suppose cultivation extends from land of bad quality which yields, for an investment of 3200 frs., 400 qs of wheat, to land of even worse quality, which for the same investment (and on the same area) yields only 320 qs.

### TABLE ONE

of pr	Vheat oduced (qs)	Capital advanced (frs)	of	produ	e of ection	pri	erall ce of od.	Ground rent
				total	unit	total	unit	
A	450	2200	250/					
		3200		4000				500
В	400	3200	25%	4000	10,00	4000	10	0
			TABL	E TWC	)			
A	450	3200	25%	4000	8,88	5650	12,50	1650
В	400	3200	25%					1000
<b>C</b>	320	3200					12,50	0

We can see that as a result of the extension of the boundaries of cultivation, A's ground rent rises by an additional 500 frs. to 1650 frs. B, which formerly (table one) yielded no ground rent, now has a ground rent of 1000 frs.

In the course of capitalist development the rate of profit tends to fall. On the other hand, ground rent has a tendency to *rise*. Suppose, however, that land of a better quality is brought into cultivation after land of poor quality: in that case we would have,

### TABLE THREE

X	500	3200	25%	4000	8,00	5000	10	1000
	450				8,88			500
В	400	3200	25%	4000	10,00	4000	10	0

In this case, A's ground rent remains constant (cf. table one), but land X, which formerly yielded no rent, now yields 1000 frs. The mass of ground rent accruing to the owners is of a greater value,

both absolutely and relative to the capital advance, than in table one.

It is also possible that new land brought into cultivation is of such quality and extent that the price of foodstuffs falls, with the result that poor land no longer yields a rent and has to be abandoned. In this case, the ground rent of certain specific lands will fall, and yet, even here, the total mass of ground rent can rise both absolutely and relatively, as shown below:

### TABLE FOUR

Y	600	3200	25%	4000	6,00 5328	8,88	1328
X	500	3200	25%	4000	8,00 4440	8,88	440
A	450	3200	25%	4000	8,88 4000	8,88	0

In this case land B goes out of cultivation, while A no longer yields a rent, and the rent of X falls from 1000 frs. (table 3) to 440 frs. And yet the total mass of ground rent increases from 1500 frs (table 3) to 1768 frs.

Differences in the fertility of the soil are not the only component of ground rent; others include locational differences or distance from markets. As demand rises in any given centre, the distances over which foodstuffs are now sought increase. But the lands located furthest away are only cleared for commodity production when the price of foodstuffs is sufficiently high to cover transport costs, in addition to production costs, and yield an average profit. Lands located nearest to the market thus obtain a ground rent. In the following example, lands situated at unequal distances from the market are assumed to have the same degree of fertility; transport costs for wheat are assumed to be 1 centime per quintal per kilometre:

	Distance	Wheat	Price of	Trans-	Market price	
Land	from	produced	pro-	port	of 400 qs	Ground
	market (km)		duction	costs	wheat	rent
A	5	400	4000	20	4400	380
В,	50	400	4000	200	4400	200
C	100	400	4000	400	4400	0

This type of ground rent also has a tendency to rise in proportion to the growth of population. But improvements in transport which reduce transport costs counteract this tendency.

Finally, a third type of ground rent is possible, which is particularly important in countries of long-established cultivation. The production of foodstuffs may be increased not only by

clearing new, formerly uncultivated land, but also by improving land already under cultivation, employing more labour on it, investing more capital in it and so on. If this additional capital invested in land of a better quality realises a profit which exceeds any profit accruing from land of poorer quality which would in the absence of such investments, have to be cleared and brought into cultivation, the additional profit constitutes a new surplus profit or rent. Let us go back for a moment to table one. Let us assume that land B in that table is part of the worst land and that its price of production (10 frs per qu of wheat) is the current market price. Now if an additional sum of capital is invested in A, say its total capital doubles, and this new investment, while not as productive as the original investment, is nevertheless more productive than any investment would be on the worst land, we would have,

#### TABLE FIVE

Invest- Wheat ment				Market price	Ground rent
				per q. total	
A1 450	3200	25%	4000	10 4500	
A2 420	3200	25%	4000	10 4200	200
A1+2 870	6400	25%	8000	10 8700	700
B 400	3200	25%	4000	10 4000	0

The total value of A's rent increases due to the additional investment.

Now all these various types of ground rent have one common characteristic: they all derive from differences in fertility or location, i.e., they are differential rents. Where the agricultural capitalist and the landowner are two distinct persons, the surplus profit accures to the latter. But normally the landowner will not receive any more than this (assuming that the tenant cultivates according to capitalist norms), for unless the tenant expects to retrieve an average profit, he will not continue business and the landowner will have no tenants left. On the other hand, where the landlord's rent-charge is less than the ground rent, a part of the surplus profit will stay with the tenant and he will thus have realised a profit higher than the average.

In industry the persistence of a surplus profit depends on a capitalist being able, due to some exceptional circumstance, to limit competition to some extent. Such is the case with landed property. The latter constitutes a monopoly, and land can be

withdrawn from cultivation if it yields no rent. Even the owner of the worst piece of land, one which yields no differential rent, has an interest in obtaining ground rent all the same. He could, for example, clear the land when market prices are sufficiently high to yield a surplus profit, but this condition is not necessary to the existence of such a profit. It was Marx who first studied the laws of the particular form of rent called absolute ground rent. Like every monopoly price, the price of foodstuffs and provisions generally, determined by the monopoly constituted by landed property, can rise above the value of those commodities, though there are limits to which the landowners can push up the level, of absolute rent.<sup>3</sup> To summarise, differential rent results from the capitalist character of production, not from the private ownership of land. Absolute rent results from private ownership of land and from the opposition of interests that obtains between the landowner and the society as a whole. Secondly, differential rents do not, like absolute rent, enter into the determination of the prices of agricultural produce. The former derive from prices of production, the latter from the margin between market prices and prices of production. While the former consists in a surplus profit, the latter can only be a charge, levied by the landowner, on the existing mass of values, a charge on the mass of surplus value, hence a cut in profits or wages. When a rise in the price of foodstuffs is accompanied by a rise in wages, profits shrink. When the rise in food prices exceeds that in wages, it is the workers who stand to lose. Finally it is also possible, and is generally the case, that both workers and capitalists share the loss to the benefit of the landowner.

Fortunately there are limits to the extent to which absolute rent can be pushed up. Due to the competition of overseas products, absolute rent has fallen to the gain of the working classes. If the condition of the latter has improved since 1870, particularly in England, this is due in large part to the fall in absolute rent.<sup>4</sup>

# Large holdings and small holdings

The further capitalism penetrates agriculture, the deeper becomes the technical gulf separating the large holding from the small. The former is favoured by the operation of scale economies (in land, labour, means of production) at the level of the household, in the particular mode of circumscription) of the farm, and in the actual process of production. To begin with, fifty small peasant holdings require fifty ploughs, fifty harrows, fifty carts,

etc., where perhaps one tenth this quantity would suffice on a large property (covering the same area). Thus the large holding realises considerable economies in draught animals and implements of production, even assuming that its process of cultivation is the same. Statistics pertaining to agricultural machinery show this. Among the few machines which can be employed on small as well as large holdings is the thresher. In 1883, to give one example, to every 1000 hectares of cultivated land, there were 2.84 steam-driven threshing machines on holdings in size classes ranging from 2 to 100 hectares, as against 1.08 on holdings above 100 hectares, and 12.44 threshing machines of other sorts, as against 1.93. No one would argue that this is because small holdings tend to use more steam-driven threshers than large ones. In spite of this economy in the use of machinery, it is possible that large holdings employ a larger number of implements, absolutely and relatively. because the character of cultivation on them is not the same. There is of course a whole series of implements, particularly machines, which cannot profitably be used on holdings below a certain level. According to Krafft, the minimum cultivated acreage necessary for the profitable use of certain implements is as follows:

	Hectares
for a plough with a team of	f - 30
for seed-lips, reapers -	- 70
for steam-threshers -	- 250
for steam-plough -	1000

Again, only the large holdings offer scope for the profitable use of electricity in cultivation.

We should recall that in the German Empire in 1895 of a total of 5.55 million agricultural holdings there were only 306,828 which exceeded 20 hectares, and only 25,061 which exceeded 100 hectares. The enormous majority of holdings are too small even for the profitable employment of a yoked plough, let alone any machinery. For every hundred holdings in different size classes, the number of farms employing various implements was as follows:

Size of Machines Steam Seed Reapers Steam Other holding in ploughs lips threshers threshers (hectares) general less than 2 2.03 0.00 0.46 0.01 1.08 0.49 2 - 513.81 0.00 1.29 0.06 5.20 6.56 5 - 2045.80 0.01 4.88 0.68 10.95 31.89 20 - 10078.79 0.10 17.69 6.93 16.60 64.09 94.16 57.32 31.75 61.22 60.53 over 100 5.29

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In each category it is the large holding that employs the most machinery. Leaving aside the thresher, machinery is scarcely used at all on the small holding.

The same principles hold in the employment of labour, human and animal. The small holdings spends proportionately more labour to obtain the same result, and however high its productivity, it cannot use labour with the same efficiency as the large holding. According to Reuning, there were 3.3 horses to every hundred acres of small peasant property in Saxony around 1860, against 1.5 to every hundred acres on the estates of the nobility. On the small holdings cows are used both to produce milk and other cows as draught animals. The large number of cows on small holdings is also, to some extent, due to the fact that on such holdings the raising of cattle tends to be more important than the production of cereals as compared to the larger holdings.

Economies in the use of implements, draught animals and labour saving machinery implies, finally, an economy in the use of labour power itself. But if the stock of implements and draught animals is proportionately lower on the larger holdings, per unit of land area, and their use of labour power proportionately less, it is equally clear than they employ a greater absolute quantity of these factors than the small holdings. This only shows that the former are able to profit more from the division of labour than the latter. The large holding alone allows the degree of specialization and adaptation of the tools and implements to specific tasks that is the basis of the superiority of modern production over precapitalist production. The big landowner distributes the various functions into two categories, those which require a particular aptitude or skill and those which demand a mere deployment of effort. Functions of the first type are reserved for those of his workers who have shown a particular skill or diligence, and whose aptitude and experience are likely to increase as a function of their specialization in a specific task. Workers work longer at a given job and change jobs less frequently, with the result that big holdings eliminate the loss of time and effort that characterizes frequent shifting of labour from one task or place of work to another. Finally, the large holding can benefit from the advantages of a planned and systematic cooperation of a large number of workers to a specific end.

The most important advantage accruing to the large holding from its greater deployment of labour consists in the specialization of tasks into purely manual ones and purely intellectual ones. We saw earlier how important scientific management has become for agriculture. Only the large holding can ensure the production on a scale sufficient to require the services of the agronomist in the direction and surveillance of the different tasks. This scale varies with the type of cultivation: with cultivation of a highly intensive character, e.g., viticulture, it may be only 3 hectares; with more extensive modes of cultivation, e.g. livestock production, it could be 500 hectares. On an average we can say that in central Europe a holding of 80-100 hectares exploited extensively, requires enough management to occupy one specialist whole time. But in Germany there were barely 26,000 holdings of over 100 hectares in 1895, which explains why there is so little trace of any rational agriculture in the country. Goltz argues that the average yields are very low when compared to those which could be obtained, and are obtained, even on land of inferior quality through the adoption of better methods of cultivation. With improved methods Germany could produce an additional 100m quintals of grains without any further expansion of acreage.

The resistance that the peasant farm puts up before the large holding is based not on its higher productivity but on its lesser needs. The large holding has to produce more than the small one to obtain the same net income, for its expenditure comprises the maintenance costs of urban bourgeois workers. From this point of view, the medium holdings are the worst sufferers, because of their proportionately higher costs of management. The bigger the holding, the faster these costs fall. Management of a farm of 100 hectares requires an agronomist; for a holding of 400 one functionary is the most you need: other things being equal, the product is four times larger, while management costs are only one and a half times as great. Within the peasantry, all other things being equal, the larger the holding the better it is; the same holds for the class of big landowners. On the other hand, at the limit dividing the peasant farm from the large holding, it is possible that the peasant farm is superior, if not technically then at least economically, to a bigger holding administered by an agronomist. For the small estate owner the costs of management often exceed the value of its services.

To these and other advantages in the sphere of production, we should add those which accrue to the larger holdings in the sphere of credit and commerce. Of all the buyers and sellers engaged in the market, the peasant is undoubtedly in the worst situation. He is the worst off as far as his knowledge of the market goes, and the least able to make rapid gains from changes in the market or to forestall a slump. The more diversified character of his production entails buying and selling in various disparate markets. Apart from his implements the peasant has to buy draught animals, seed, fodder, fertilizer; he sells draught animals, grain, milk, butter, eggs, and so on. His dependence on the merchant is thus extreme. Both the intensity of this dependence and its effects are worst where the merchant is at the same time a usurer, that is, where the peasant's requirement of cash for the payments of taxes and interest forces him to part with his produce at any price or even to sell it in advance.

We saw earlier that modern agriculture cannot do without capital. We also saw that outside of areas where renting is the dominant system, mortgages are the principal means of procuring money (apart from personal loans, which tend to be used as circulating capital, as against mortgages which are used to purchase fixed capital). In the acquisition of credit the large holding is again favoured by definite advantages. It costs no more, in labour or money, to register a mortgage of 200,000 frs. compared, say to one of 20,000 frs. Moreover, there is a definite economy of scale in the procuring of loans on mortgage (e.g. as Lafargue shows in his excellent article on 'small landed property in France', a relatively small loan of 300 frs. entails a cost, by way of interest charges and ordinary expenses, of 48½ frs). The fact that in Prussia big landed property is more heavily mortgaged then small property indicates not that the former is in a deeper crisis but only that peasants find it more difficult to procure loans on mortgage. Peasants are thus generally forced to resort to personal loans, which are far worse than mortgages. The big agriculturist sells his produce directly on the big market, he is in constant touch with it and consequently finds it easy to obtain as much credit as the merchant or industrialist in the economic centres which are the base of big capital. The isolated peasant who has only a small quantity of produce to sell, stays away from the big markets. He restricts his transactions to the merchant who resides in the neighbouring small town or who visits him. His commercial transactions have nothing to do with big urban capital. When the peasant needs cash, he borrows locally, often from a merchant, owner of the village or big peasant, all of whom know how to make as much profit from these small loans as the conditions of the rural capital market, the peasant's desperation and their own dominance permit. While capitalism generates indebtedness in big property and small holdings alike, the character of small scale production binds it to medieval forms of debt incompatible with the requirements of capitalist production.

The advantages of large holdings thus include—a bigger proportion of cultivated acreage, economies in the consumption of labour power, draught animals, and implements of labour, efficient utilisation of all resources, the possibility of using machinery, division of labour, specialist management, a superiority in the market, easier access to credit. What for its part does the small holding show against these advantages? One of the most passionate advocates of small cultivation, John Stuart Mill defines as its most important characteristic the untiring labour of its workers. The peasant condemns himself and his family to forced labour. In agriculture the household and the holding are closely connected; it follows that child labour is at the disposal of the farm. In small scale cultivation, as in domestic industry, the use of child labour for family exploitation is even more pernicious than the hiring out of child labour for wages. The insanity of peasant labour was not, however, always inherent in the condition of the peasantry. Roshcer cites the example of Lower Bavaria where in the medieval period some 204 days of the year were holidays. The sort of overwork which prevails today only really begins when the produce of labour is sold on the market; it is the effect of sharpening competition. Under the pressure of competition, the intensity of labour must be increased in proportion to the technical backwardness of the farm. This process has a reverse side however. A holding which cannot compete on a technically superior basis is forced to exact the maximum effort from its workers. On the other hand, a holding where the workers can be driven to any limits does not require the latest technical equipment, as do holdings where the workers impose limits on the intensity of their labour. The possibility of increasing the labour time of a given workforce is a serious obstacle to technical progress. The intensification of labour on the peasant holding independently of any moral or other constraint cannot pass for an advantage of small scale production, even from the purely economic point of view.

The same holds for the peasant's modest needs. The self-restraint which compels the peasant to drive himself harder than the landless wage labourer compels him, to the same degree, to reduce his requirements to a minimum. Some examples will show how under the pressure of competition the condition of the small peasant can degenerate below that of the wage labourer. Around 1880 an Englishman observed that one could not imagine anything more wretched than the condition of certain French peasants. This is his description of one of their homes: 'No windows, two panes which you cannot open, no air, no light, even with the door open. No shelves, tables or cupboards; on the floor, onions, dirty clothes, bread, plough-shares and a foul-smelling heap of rubbish . . . Every

night, the men, women, children and animals sleep together in one mass . . . 'Their greed is sordid, writes the author in another passage, regarding their obsession for saving the last penny. 'It is impossible to imagine a life as backward or destitute of any sort of enjoyment . . .' But the situation is no better on the small holdings in England, going by the most recent report of the parliamentary commission on agriculture (1897). In this report a small peasant is quoted as saying, 'We work harder than the day workers, like slaves. Our only advantage is that we are free'. Mr. Read described the condition of the small farmer in the following terms: 'Their only means of survival is to work as hard as two day workers and consume no more than one. Their children are much worse off and more badly looked after than those of the day labourers'. Of Germany, Hesse writes, 'the small peasant leads the most wretched existence you could imagine: the day labourers are far better off. With their wages they are not exposed to the whims of time, except in the bad years when their diet is not as good'. Their staple food is potatoes. A. Buchenberger provides another example from Germany, from the commune of Bischoffingen. He compares a medium holding of 11 hectares with a smaller one of 5½. Due to exceptional circumstances the medium holding was cultivated exclusively by wage labour—a bad situation because the land was too small to compensate for the drawbacks of wage labour with the advantages of size; the other holding was cultivated entirely by the owner and his family (his wife and six elder children). The bigger holding ended with a deficit of 933 marks, the smaller with a profit of 191 marks. The difference consisted in this, that on the holding run on wage labour the diet was fairly good, the equivalent of almost 1 mark per person per day, while on the smaller farm where the family was fortunate enough to be working for itself, the cost of consumption amounted to only 48 pfennings per person per day, not even half as much as on the other farm. If the peasant proprietor's family had been as well fed as the wage labourers of the bigger farm, instead of a profit of 191 marks, he would have shown a loss of 1256 marks. The profit did not mean that his barns were full; it meant that their stomachs were empty. A report from Weimar district completes the picture: 'If, in spite of so much poverty, land sales are not more frequent, this is because our peasant, in order to preserve his independence, knows how to endure an incredible amount of suffering. As long as the smallholders do not plough their own fields but work instead as day labourers, they are relatively well off'. A final example: Auhagen compared two holdings, one of 4.6 hectares the other of 26.5 hectares, taking into account their net income, not their relative labour productivity. He found that the small holding yielded a larger net income. How? The small peasant made his children work, even the youngest aged seven.

On their schooling he spent 4 marks per year. The big peasant sent his children to school and his son aged fourteen to a gymnasium at a cost of 700 marks per year—more than the total household expenses of the small peasant.

For us the subhuman consumption of the small holding does not constitute any more of an advantage than the superhuman labour that it exacts. Both facts show that the small farm is an economic phenomenon of the past, and both are an obstacle to future progress. Thanks to them, small scale exploitation produces a class of barbarians, almost outside society, which combines in itself all the crudeness of primitive social forms with the wretchedness and misfortunes of the civilised countries. That conservative politicians should seek by any and every means to preserve this barbarism, the last bulwark of bourgeois civilisation, is not difficult to understand! Of course, there is no doubt that peasants show an enormous amount of diligence, and that diligence has an important role in production, both in agriculture and in industry. But we should not exaggerate this point. In fact, all the other advantages of the small holding-its excessive work, underconsumption, general ignorancereduces its effectiveness. The longer the peasant works, the less he consumes, the less time and money he has for his own development—the less diligence he can show. And what use is this diligence if he has no time to take proper care of his livestock and stables, overworks them and nourishes them as poorly as himself.

The peasant holding is worst where it fails to produce an adequate subsistence and the peasant has to resort to supplementary work. According to the 1895 census, of the total number of 5,600,000 owner cultivators only 37% are independent farmers without any subsidiary occupation; of the 3,236,000 holdings under two hectares, only 13%—147,000 holdings in this latter category belong to independent cultivators with a subsidiary occupation, 690,000 to agricultural labourers, 743,000 to factory workers and 534,000 to independent artisans.<sup>6</sup>

## The limits of agricultural capitalism

Despite the evident superiority of large holdings in all the important branches of agriculture, a number of economists maintain that the two are in some sense equal and, further, that the large holding is disappearing. Now it is perfectly true that the most recent census data do not corroborate the view that small holdings have vanished before the expansion of the larger ones. In Britain and Germany, for example, taking the period 1885-95, we find that it is the medium holdings that have expanded most—in Germany mainly holdings

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from 5 to 20 hectares, in Britain holdings from 40 to 120 hectares. In America the declining average size of holding is to be attributed mainly to the disintegration of the big plantations of the south and the shrinkage of the uncultivated portion of land in the older north Atlantic zone (by contrast, in the states of the centre-north the average size has increased over the 1880s). Even so, it would be premature to conclude from these figures that the general direction of development in agriculture is quite different from that in industry. But 'figures show . . .'. This is true, but we have to ask, what do the figures show? To take an example, does the rise in the number of deposits on savings bank accounts show an increase in the welfare of the masses under capitalism? Take another example: suppose a small peasant in the past earned an income of 500 frs, but paid no rent and produced most of his subsistence on the farm; this peasant then encountered some mishap, was forced to move to the town and take up employment in a factory, for 1000 frs, double his previous income. The situation of such a peasant could only be worse now than it was formerly, because now he has to pay rent, spend money travelling to work, buy food which he previously produced himself, clothe his children, and spend more on doctors. To the statistician, however, it is beyond any doubt that his welfare has increased. In the same way, we should be careful not to draw any conclusions about the development of capitalism in agriculture from figures which show that far from decreasing, small holdings are on the increase. Such figures only provide guidelines for further research. What they do show, in the first instance, is that capitalism does not develop in agriculture in the simple way we thought, and that its development is probably more complicated in this sector of the economy than in industry.

In the march of modern industry the most different tendencies interact in opposing directions, and often it is difficult to determine those which are dominant in all this chaos. Large scale production does not implant itself in all branches of industry at once. It conquers them in succession. Where it establishes its dominance, the small enterprises disintegrate, which does not mean, however, that all the small enterpreneurs become workers of the large enterprise. They go over to other professions and encumber those. In this way capitalist competition succeeds in ruining even those branches of industry where large scale production is only weakly developed. Nor does this process express itself in a general decline of small enterprises; here and there they may actually increase, which could give the impression that they are therefore thriving. The branches of industry where small enterprises perdominate numerically are domestic industries exploited by modern capitalism. The proliferation of enterprises in these sectors does not indicate a

triumphant struggle against big capital. But even in the branches where machine production predominates, the progress of big industry does not necessarily entail the disappearance of small units. It ruins them, renders them superfluous from an economic point of view, but these units have enormous reserves of resistance. Hunger and overwork prolong their death-agony to extreme limits. The wretchedness of the Silesian weavers had become proverbial in our century, but for all that they still exist. Other factors perpetuate small scale production. Among these is the conscious political support of the State, which attempts to retard the disintegration of the middle strata. The development of capitalism itself induces a rebirth of feudal forms which for a long time were economically obsolete, for capitalism entails an increase in the mass of surplus value, an increase not only in the mass of accumulated capital but also in the incomes of the capitalist class, and thus a growth in their wasteful expenditure. The growth of such expenditure leads to the renewed expansion of forest land required for the hunting sports, to the expansion of domestic service, to the rebirth of handicrafts whose products now pass for luxuries. But this process is sporadic, it operates only for some regions and some industries. In its decay small scale production follows a complicated and contradictory line of evolution, the general tendency of which is, however, firm.

The currents and tendencies which thwart the process of concentration in industry are active in agriculture as well. But in agriculture other tendencies operate, which do not appear in industry, and the question is thus much more complicated. To begin with, industrial means of production can be multiplied, whereas in agriculture land is, within the given conditions, a fixed resource. Under capitalism we can distinguish two broad movements -accumulation and centralisation. The centralisation of capital signifies, by contrast, a reunion of the different scattered capitals into one capital. In agriculture the big landowner cannot generally increase his wealth except through centralisation, reuniting several holdings into one. In industry accumulation proceeds independently of centralisation: a big capital can form without suppressing the autonomy of the lesser enterprises. When this suppression occurs, it is the effect of the formation of big industrial capital. Accumulation is here the starting point. On the contrary, where the land is fragmented into different properties and where small ownership prevails, large holdings can only acquire land by centralising several smaller ones. The disappearance of the smaller holdings is thus the precondition for the formation of a large enterprise. But this is not enough; it is also necessary that the holdings that are expropriated should form a continuous surface. Thus the mortgage banks which in any given year acquire hundreds of small properties cannot, for all

that, concentrate them into one big one; they are scattered and dispersed in the most different localities. When the landowning class was dominant, it was easy for it to acquire land for the creation of big estates. They simply expelled the peasantry, through naked force or by some other means. But bourgeois property recognises only one basis for expropriation-default. As long as the peasant repays the capitalist and the state, his property is sacroscant. This poses a serious obstacle to the growth of big landed properties. The process is most difficult where small property predominates exclusively. But even where the two co-exist, big property cannot always advance so easily, for the small holdings which come on the market are not always those which are required by the landowner for his expansion. An agriculturist who finds his existing property too small and wants to expand generally prefers to sell that property and acquire a new and better one rather than wait indefinitely for the chance to buy up the neighbouring land. This is one of the factors at the root of the great mobility of property in land, the numerous transactions in land which characterise the bourgeois epoch.

Secondly, in industry large units of production are always superior to small ones. In agriculture this is true only up to a point. The expansion of an industrial enterprise signifies a growing concentration of productive forces with all the concomitant economies-of time, costs, material, management, and so on. In agriculture, on the other hand, the expansion of a given enterprise on the same technical basis amounts to a mere extension of the area under cultivation, and thus entails a greater loss of material, a greater deployment of effort, resources, time, for the transport of material and men. These losses increase in proportion to the degree of expansion. This might imply that profits are highest where the property is small. This is not so, of course. The advantages of the big holding more than compensate for the diseconomies of distance. But this is true only within certain limits. Beyond these limits the diseconomies of distance grow at a faster rate than the economies of size. Beyond this point every further extension of the area of the property diminishes its income. Naturally it is impossible to determine where these limits lie with any accuracy. Generally they differ according to the nature of the soil and mode of cultivation. Certain innovations tend to push the limits upwards, while other factors—an increase in the labour force or stock of animals—has the reverse effect. In general one might surmise that the limits beyond which marginal revenue begins to decline are narrowest for forms based on intensive cultivation and heavy concentrated doses of capital investment.

Following the same line of thought, the smaller a given holding, the easier it is to exploit it intensively for a given amount of capital.

A small holding cultivated on an intensive basis can constitute a larger enterprise than a bigger farm that is exploited extensively. The figures which refer only to the size of a holding do not enable us to decide whether a declining average size of holding reflects a real shrinkage or cultivation at a higher level of intensity. Exploitation of forest resources and pasture land generally takes place over large surfaces. As production for the market developed, these forms of exploitation were the earliest instances of capitalist production in agriculture. They required neither machinery, nor specialists nor large sums of capital. They required only the power to be able to dispossess the peasantry and assert exclusive control over forests and pasture. Similarly, in the colonies where land is abundant and labour scarce, exploitation of forests and production of livestock were the earliest base of large scale agricultural enterprise, e.g., in the USA, Argentina, Uruguay, Australia. Here some of the pastoral holdings attained the size of entire German principalities. The surfaces associated with arable farming are generally smaller, but even here the maximum size and average area exceed those characteristic of intensive forms of production. Grain production in North America was based on a system of clearing virgin land, exploiting it harvest after harvest, then moving on to another piece of land. This nomadic agriculture was equipped with the latest implements and excellent machinery, and as the farmer incurred no cash expenditure in acquiring the land, he could invest the major part of his cash on purchasing fixed capital. This type of agriculture required no fertilizer, hardly any draught animals nor any system of rotation. The whole cycle centred on a single product, generally wheat, which thus absorbed all the implements, machinery and labour employed on the farm. In those conditions the area of some holdings could become very large indeed. On the other hand, in England production is of the intensive kind and requires substantial amounts of fertiliser and a system of crop rotation; farms generally do not exceed 500 hectares; at any rate, 1000 ha. is the limit. The average size of big capitalist holdings and smaller peasant farms is generally bigger in America than in Europe. In Germany, for example, a peasant with 70-100 hectares would normally be regarded as a big peasant; in 1895 the proportion of such holdings was well below ten per cent. In America, on the other hand, almost half the total number of holdings were between 40 and 200 hectares. But once private property in land is firmly established, the foundations of this extensive agriculture crumble. Previously the peasant moved from arable to fallow, exploiting only the top layer of the soil; as he is progressively confined to a single tract of land, he has to invest in more labour and circulating capital and increase his stocking density; where either labour or capital is scarce, the size of holding must be

restricted. Thus the declining average size of holding should not be taken as a sign of the victory of the small holding over the big, but rather as a concentration of production over smaller surfaces, which goes hand in hand with an expansion of the capital employed in production, an increase in the mass of labour employed and therefore, effectively an increase in the scale of cultivation. The transition from extensive modes of production to arable farming tends to diminish the average size of holdings, without diminishing and sometimes even increasing the scale of production. The same applied when intensive stockbreeding replaces the production of cereals.

Figures which only cite the surface area of holdings do not mean much. This is the first conclusion. The second is that the process of centralisation of the land for the expansion of a given property encounters specific limits for a given type of holding. The continuous extension of the farm as a means of centralisation characterises only those regions in which renting predominates. Where the system of owner cultivation or wage labour exploitation prevails, centralisation expresses itself not through this expansion into contiguous areas but through the acquisition of new properties (cf. the landowning gentry of Prussia and Austria). When centralisation occurs on this basis it implies the growth of a centralised management, that is, it implies the emergence of a new form of exploitation, the latifundium. Under this form centralisation can proceed indefinitely. The latifundium clears the ground for the most advanced form of production known to modern agriculture, the integration of several holdings under one management and their progressive fusion into a single organism regulated by a methodical division of labour and by the cooperation of several units. But despite the economies which characterise such an enterprise (economies of scale and of specialization as Krafft shows in his description of the Austrian latifundia), it meets one obstacle which only rarely affects big industry-the shortage of manpower.

In modern urban industry the household and the unit of production are entirely separate entities. In agriculture this is not so, due to the greater dispersion of the rural population and the economic solidarity of the household and the farm. Survival of proletarianised farm labour thus depends on such labour being maintained by the employer's household (the spectrum of such labour would run from the totally proletarianised 'free' labour who form an integral part of their employer's household, through various transitional types such as the Deputanten, Instleute and Keuerlinge, who generally live on the farm but in separate lodgings, to the semi-proletarian day workers who have households of their own). The situation of most categories of farm labour is not conducive to

the perpetuation of this class in the countryside. The highest rates of reproduction thus characterise not these segments of proletarianised labour but the small owner cultivators for whom farm and household are one, and it is from their ranks that the large holdings draw their reserves of labour. But the deeper such holdings penetrate into the sector of small property, the lower becomes the rate of reproduction of this labour power. It follows that despite the technical superiority the large holding can never establish an exclusive domination in any country, even in the areas of its predominance. In most cases the shortage of manpower is the basic cause for the retreat of large holdings before smaller ones. This phenomenon takes two forms: either a portion of the large estate is parcellised and sold or leased out to small peasants or the big properties are themselves sold or auctioned and disintegrate into small properties. But like the triumph of the larger holding over the small, its inverse also runs up against definite limits. As the number of small cultivators proliferates on the periphery of the big farms, the pool of available manpower expands, thus reinforcing the vitality and dominance of the large holding. In such areas of recent proliferation the tendency for the large holding to expand is set in motion once again—as long as counteracting influences such as the location of new industries in the countryside do not restrain it. The figures for Germany show, for example, that in areas where big property predominates, the area occupied by it has tended to decline (the mean rate of decline over some thirteen years works out to 1.79%), whereas in areas where peasant holdings dominate, big property shows a tendency, however weak, to expand (the mean rate of expansion over the same period = 0.50%). The argument that landed property tends to alternate according to this rhythm is not at all incompatible with Marxist ideas, for Marx himself argued in his critique of Girardin's work that under capitalism agriculture is bound to oscillate between concentration and disintegration, though the oscillations are not as abrupt or violent as he imagined. But precisely this tendency shows how absurd it is to suppose that if small holdings continue to survive, then it must be because they are more productive. The real basis of their survival is the fact that they cease to compete with the large capitalist farms which develop by their side. Far from selling the same commodities as the larger farms, these small holdings are often buyers of these commodities. The one commodity which they do possess in abundance, and which the bigger holdings need, is their labour power.

## Proletarianisation of the peasantry

We said in a preceding section that the ruin of the peasant's home-based industries compels the small peasantry to look for supplementary employment. The small peasant finds the time to do this because the farm does not absorb his efforts except sporadically. He earns cash not by selling his surplus produce, but by selling his surplus time. As a producer of foodstuffs he does not work for the market, but for his own consumption. His role in the market is that of the proletarian. Wage labour generally leads women who are employed in the factory to neglect, rather than completely abandon, the household; the same is true of the small peasant who hires himself out or who works at home for a capitalist. His farming becomes more and more irrational, too much for him, and he finds himself forced to impose limits on it.

A vigorous peasantry stabilises population, and is thus held in high regard by the militarist sections of the ruling class. But when the peasant is reduced to his farming, and deprived of any supplementary source of income, the limits of his property compel him to restrain the size of his family. Where, however, alternative avenues of employment grow up outside the farm, the population grows rapidly and acquires an increasingly proletarian character. The demand for land rises, not for the purposes of farming but as a means of setting up house. Thus the expansion of employment opportunities augments the number of holdings, both because it cuts down the size of existing holdings and because it accelerates the rate of population growth and consequently the demand for such holdings. Here the fragmentation of land predominates over its centralisation.

The price of a piece of land exploited on a capitalist basis is determined by the amount of its ground rent. Its purchase price is equal to its capitalised rent. An entrepreneur would not pay more than this if he is concerned about his rate of profit. But the simple commodity producer peasant does not calculate things in this way. He is a worker, owning no property, living off the produce of his labour, with a life style close to that of a wage labourer. To him land is a means of earning a living, not a source of profit or rent. He can live as long as the price he receives for his produce covers expenses and renumerates his labour. The simple commodity producer peasant can thus pay a higher price for a given piece of land than one who produces on a capitalist basis. But this method of calculation can lead the peasant into serious trouble, if according to the habits of a simple commodity producer he pays an excessive price for land when in his actual situation, if not formally, he has left the stage of simple commodity production and has become involved in capitalist

production, not, of course, as an entrepreneur, but as a worker exploited by capital. If he has taken the land on mortgage, he has to extract from it not only the equivalent of his wage, but a ground rent as well, and an excessive price can be as ruinous to him as to the entrepreneur. The agriculturist has no interest in high land prices except when he ceases to be such, i.e., when he sells his holding. With the small peasant for whom agriculture is wholly or mainly a part of his household economy, and who earns the greater part of his income by selling his labour power, things stand differently. Here the relationship between the price of land and the sale of commodities is no longer relevant, at least as far as the buyer is concerned. For the seller capitalised ground rent constitutes the minimum price of the land; the buyer is concerned only with his needs and resources. For this sort of buyer, who pays an increasingly higher price for land as the demand for land increases, the labour expended on farming is not considered a cost, it is taken to cost nothing.

It is a well known fact that small properties are proportionately more expensive than large ones. Some enthusiasts of small property have thus tried to argue on this basis that small holdings are superior to large ones. But the structure of urban rents is analogous. In both cases it is the desperate situation of the buyers which accounts for the proportionately higher rents.

The smaller the property, the greater is the peasant's dependence on supplementary work. The increasing predominance of such work, the growing shortage of productive means, the increasing subordination of farming to the needs of the household, the progressively more irrational character of exploitation in such conditions and its greater affinity to the proletarian home, where the most miserable results are obtained at the cost of a tremendous waste of labour and an overworking of the woman's labour—all this implies that the holding becomes less and less capable of meeting the needs of the household. In the German Empire in 1895 76.5% of all holdings were under 5 hectares (58% under two hectares), i.e. over ¾ of them are compelled to buy grains on the market and stand to lose, therefore, from a raising of the tariff. The vast majority of the rural population no longer figures on the market as a seller of foodstuffs, but as a seller of labour power and purchaser of foodstuffs.

The fragmentation of the land along these lines is especially rapid in areas where employment opportunities exist outside the limits of farming. In Belgium holdings of the smallest size, which expanded fastest over the latter half of the nineteenth century, have come to account for almost four fifths of the total number of holdings. Such a process of fragmentation can lead to a consolidation of big property, as we saw. Thus both extremes can grow simultaneously.

In this case fragmentation would work itself out chiefly at the cost of medium holdings. This is the case in France and Prussia. Thus to the alternation of concentration and fragmentation, we must add the combined development of both.

If we leave aside agricultural wage labour, which occupies the time of even those peasants who may have up to six or eight hectares of land, one common subsidiary source of income is domestic industry. The origins of this form go back to the feudal epoch, when the peasant was at once an agriculturist and craftsman. Subsequently the expansion of urban industry forced him to specialise in agriculture, but in spite of this for a long time a number of domestic industries persisted in the peasant household. When agriculture fails to yield a sufficient income such industries tend to revive. But rural industry works not for clients, insofar as it assumes a commodity character, but for capitalists, merchants and brokers, and it tends to be concentrated in branches which require only a minimum of skills and simple equipment. It is located mainly near sources of raw materials (though these are often supplied by the capitalist, for example, yarn where weaving is concerned) or in regions where the soil is poor and the conditions favouring the expansion of big property absent. The limit to the expansion of such industry consists only in the availability of manpower; it is, otherwise, compatible with the smallest holding, the most primitive techniques, requiring no capital or only small doses, and the capitalist himself runs no risk in accelerating its expansion when market conditions favour this. In its periods of boom home-based industry intensifies the irrational character of small scale cultivation because it absorbs all of the family's productive resources, accelerates the decay of cultivation proper, imposes new cropping patterns that are less labour-intensive and have a lower nutritional content, e.g., cabbages, potatoes-in short, it induces a regression to a form of agriculture inferior even to that which prevailed among the Germans during the great invasions. As the possibilities of technical progress in this branch are limited, the rural workers and capitalists who exploit them sustain competition by increasing the intensity of labour and reducing wages. Home-based industries are characterised by long hours of work, exhausting labour, the worst sort of dwellings, in short, they are characterised by revolting conditions. They form the worst kind of capitalist exploitation and the most degrading form of peasant proletarianisation. Small subsistence plots are the only means of perpetuating the death-agony of this form of industry before the incursions of factory production.

In pushing up the price of land, requiring a constant supply of labour and excluding specific categories of peasant labour from employment, rural-based modern large scale industries disrupt the labour resources at the disposal of the peasant farm, reduce the size of holdings and render cultivation more and more useless. But the conditions of work are better, and the large mass of scattered peasants are brought together in one place of work. Large scale industry augments the ranks of the proletariat without expropriating the small peasants, and even providing some of them with the means to safeguard their property against bankruptcy. Where neither this nor other forms of employment are available in the given surroundings, the peasants engage in long distance seasonal migrations, working on the big estates of Upper Bavaria or Saxony or moving from one country to another. In Ireland the rents of the small peasantry are paid out of the remittances from America. Such migrants, while they constitute a backward element in the towns. often acting as strikebreakers, or impeding unionisation, are tremendous agents of progress in their own villages: they pick up new ideas and needs which play a subversive and revolutionary role in these archaic surroundings. It is often these elements who become agitators and instigators of class discontent and class hatred in their home villages. Thus seasonal migrations play a contradictory role: they consolidate peasant property but at the same time they completely revolutionise the conditions of existence of the small proprietors and feed them with ideas and needs which contradict the conservatism of small property.

# The increasing difficulties of commercial agriculture

(i) For the industrialist the price of land is a minor part of his total expenses. In agriculture things are different. For example, on owner cultivated holdings of medium size the level of land prices would tend to reduce the portion of capital that is active in production to 1/4. Given the capital at the disposal of such holdings, cultivation assumes a less intensive character than it might have. From this point of view, the system of tenancy is better, for it enables the entrepreneur to devote his capital exclusively to cultivation, so that per unit of capital cultivation takes on a more intensive character. Among the various capitalist modes of production the tenancy system yields the highest net product. But there are drawbacks: the tenant exhausts the soil more quickly, and shows little interest in improving the methods of cultivation. Moreover, as ground rents rise, the duration of tenancy contracts decreases. (ii) Among the effects of the different juridical forms that govern the reproduction of property in land, we can isolate two sorts: (a) those which tend to proletarianise the peasant family, either because they accelerate (not cause) the fragmentation of the soil through the equal division of

rural property, or because, in centralising the farm in the hands of one member, they compel the others to migrate; a system of the latter type is the peasant variant of trusteeship which is especially common among the big and medium peasantry of Germany and Austria. (b) those which reinforce the centralisation of land and consolidate the larger properties, e.g., where land becomes the collective property of the family; in this sense the forms of trusteeship that prevail among the gentry facilitate the accumulation of capital and make possible a more intensive and rational type of cultivation (cf. the latifundium). (iii) In various ways the towns continually absorb a portion of the mass of values produced in the countryside: as commodity production expands the demand for capital, an increasing mass of values flows to the towns by way of interest payments to the urban banks; with increasing urbanisation and the growing attractions of the town, absenteeism expands and a larger portion of the rents generated in the countryside are consumed in the towns; the major share of the taxes which peasants pay becomes an expenditure on urban services such as the upkeep of the bureaucracy; the various charges imposed on the peasantry generate a flow of commodities to the urban sector and partly because they stimulate new methods of cultivation speed up the exhaustion of the soil. A separate phenomenon with its own special importance is the progressive depopulation of the countryside brought about by the dominance of large properties in some areas, the extreme fragmentation of the land in others, growing pressure of population, rising land prices, all of which act as so many fetters on the reproduction of the household in the countryside. The shift to intensive cultivation creates sharper seasonal fluctuations in the demand for labour, increases the economic insecurity of life in the villages, forces labour to migrate; the growing facility of communications between town and country speeds up the circulation of facts about life in the towns. As the burdens on the peasantry increase, the soil becomes progressively more exhausted, competition intensifies between large holding and the peasant plot, hours of work become longer and the mass of the population sinks voluntarily into barbarism-a powerful current of migration swells up among the poor peasantry, the relative weight of the rural population shrinks and its composition deteriorates. The intellectual abyss separating town and country on which the town founded its supremacy in education and intellectual development, deepens further. This movement of depopulation then compels big property to impose juridical constraints on its workers; small holdings are conceded against the obligation to furnish a specified amount of labour. A new feudalism is thus born. But it can not last long. The progressive march of industry destroys it, except in the most

backward areas where no industries grow up. While the proletarianisation of the peasantry increases the supply of labour, the incessant flow of workers to the industrial areas increases the demand for labour. Agriculture becomes impossible without recourse to imported labour, but these displacements merely redistribute the shortage of labour, and machinery cannot compensate. A number of machines require a larger number of workers per unit of area. Finally, even higher wages, which anyway require the organised pressure of the workers, do not compensate. Cf. A. Graham in his book Rural Exodus, 'when wages are low, as in Wiltshire, they migrate; when wages are high, as in Northumberland, they migrate. They migrate from Sleaford, where the farms are small, from Norfolk, where the farms are bigger. It is as if a desperate idea has taken hold of the countryside, that in the country no happiness is possible...'

Against the growing labour shortage of agriculture no remedy is possible under capitalism. Like feudal agriculture at the end of the eighteenth century, capitalist agriculture at the end of the nineteenth is in an impasse. If the shortage persists, the decay will become widespread. Worst hit are the small holdings, which can neither import labour over long distances nor rent out land against share contracts. In the sector of commodity production the farms least affected by the desertion of the countryside are those which employ the least wage labour and depend on family labour, generally holdings between 5 and 20 hectares. They gain from the desertion because as labour migrates the rate of fragmentation declines and it is precisely this size of holding that loses in a process of fragmentation. It is not surprising then that these are the only farms that have really expanded in Germany; between 1882 and 1895 they accounted for close to 90% of the additional area under holdings. The big peasantry with farms of 20 to 100 hectares have lost the most. But the day agriculture solves the labour question and enters a new period of growth, the tendencies which now favour the expansion of the medium holdings will cease to operate.

Of all the commodity producing strata of the peasantry it is the medium peasantry, however, that suffers most from the burdens imposed on the peasantry. The medium peasant is the worst exploited by the usurer and intermediary, the worst hit by taxes, military service, soil exhaustion, and the first to endure overwork and under-consumption under the pressures of competition. Finally, as the children of the middle peasantry are drawn into the vortex of migration, the labour question will loom as large for them as for the others. Today the middle peasantry has ceased to be satisfied with the way things stand. It wants change, as much as any diehard socialist, but a different sort of change. They are not a revolutionary

class, they will not destroy the state, however brutal their condition. But they have ceased to defend the existing order, for the agrarian crisis envelopes all classes of agriculture.

Overseas competition and the industrialisation of agriculture

Up until the last quarter of the nineteenth century, terms of trade favoured agriculture. The prices of agricultural produce rose faster than wages, and the workers were hit not only as producers, by the rising rate of surplus value, but as consumers also. The prosperity of agriculture stemmed from the growing impoverishment of the working class. Since 1870, however, the movement of prices has reversed. The reasons for this change must be sought, as with every major change in modern agriculture, in the expansion of industry and its increasing subjugation of the countryside.

The capitalist mode of production revolutionises production continuously through the processes of accumulation, of the expansion of new capitals and of technical change.7 The mass of commodities increases year by year, and at a faster rate than population. But this growing accumulation poses problems for the capitalist class, for under their mode of production surplus value accrues to the bourgeoisie while production takes on the character of mass production, production for mass consumption. In this lies a basic difference between capitalist and feudal or slave production. The feudal seigneurs and slave owners also appropriated the surplus production of their workers, but they consumed it themselves. But the surplus value appropriated under capitalism must first take the form of commodities for bourgeois consumption. Like the feudal overlord or slaveowner, the capitalist is compelled to restrict the consumption of the masses to augment his own; but unlike those classes, he is compelled also to increase the consumption of the masses constantly. Here lies one of the most characteristic and difficult contradictions of capitalism. Capitalists would welcome a raising of wages in any industry except their own. It is true that the higher the wages of workers area the more the capitalists can sell. But they do not produce to sell, but to make profits. The greater the mass of surplus value, the larger the mass of profits, ceteris paribus, and the lower the wages per unit of labour time, the greater the mass of surplus value. Moreover, capitalists have other methods, they do not regard the working class as their main market, but the non-proletarian strata of the population, especially the rural masses. The destruction of the home-based industries opened a vast outlet for their commodities. But the further capitalism grows and the larger the weight of the working class in the total population, the less

this market suffices. The extension of the market beyond the limits of the nation, production for the world market and its continuous development becomes the vital bases of capitalist industry. The world market becomes the deciding factor in the life of business, and the well being of capitalists, workers, traders, artisans and peasants.

The expansion of the railways and reduction of transport costs achieved in the latter part of the nineteenth century expanded the urban market and accelerated the growth of the industrial population which thus called for a larger volume of imports into Europe from the overseas territories. The threat to European agriculture came not from the volume of agricultural imports so much as the conditions under which they had been produced. As they appeared on the market, they made it progressively less possible for European agriculture to shift the burden of its own charges (a rising absolute rent, etc.) back on to consumers by way of price increases.

We can divide the low-cost agricultural producers into two categories: the sectors of oriental despotism, including Russia, and the free colonies<sup>8</sup>. In the first type of country the agriculturists are completely at the mercy of the State and ruling classes. In them capitalism has still not created a national political life; the nation remains, at least in the countryside, a collection of self-sufficient and isolated rural communities incapable of posing any resistance to the central state power. But as long as the system of simple commodity production remains weak, the situation of the peasant in such a state is generally not too bad. His personal contacts with the public authority are at a minimum. It is in the towns that oriental despotism wreaks havoc-vis-à-vis the bureaucracy and rich merchants. When the public authority establishes relations of one sort or another with European capitalism, the situation changes. Militarism, diplomacy and the national debt constitute the major forms of European penetration into these countries, and once this penetration is established, it increases the pressure of the State on the rural communities by boosting its demand for cash. Taxes are paid in cash, or the existing level of money taxes rises sharply. As agriculture constitutes the main branch of production and the peasantry has a low resistance to the State, the pressure of taxation is heaviest on this sector. The mass of produce increases and anything over and above the absolutely necessary minimum consumption flows into the market. But where is the market in a country where practically the whole population consists of peasants who want only to sell their produce? Thus foodstuffs have to be exported, and it becomes necessary to expand the network of railways between port and hinterland.

We can hardly argue that the price of this produce is determined

by costs of production. They are not produced on a capitalist basis, and their sale comes about under the pressure of the State and the usurer. High taxes and interest rates compel the peasant to rid himself of his produce at any price; the greater the sum of labour which he expends to repay his debt and the larger the mass of produce which he brings to the market, the lower will be the price he receives for it. The growing burden that taxes and interest payments impose on the peasantry does not raise the price of his produce, on the contrary, it pushes the price down; it pushes the ground rent and wages of the small peasants to their lowest limits, if we can talk of 'ground rent' and 'wages' in a case like this. In the face of competition of this sort, there can be no prosperity in an agriculture based on capitalist foundations, an agriculture which has to reckon with the given standard of life of the population, the given level of wages and rents based on the prevailing price of land and rate of interest, and for which a certain level of soil fertility and the available resources of manpower constitute a minimum floor.

The competition posed by the free colonies is quite different from that posed by countries like Russia, Turkey and India. There we find a powerful democracy of free peasants weighed down by neither draft nor taxes, with access to huge quantities of fertile land from which the native populations have been eradicated. Several conditions favour this type of agriculture: capital can be devoted exclusively to production itself; as no rotation is required, production centres on a single crop, e.g., wheat, which implies an economy in labour and implements; for the same input of labour, capital and land, the farmer obtains a higher yield, or, extending the area cultivated but keeping capital and labour constant, the same yield as in Europe. But the situation has been changing more recently, for example, in America, where conditions have been drawing closer to those characterising Europe, and thus reducing the competitiveness of its agriculture.

For countries of the former type, integration into the vortex of world competition can lead finally only to the outbreak of famines, as the uncultivated portions of land shrink, the cultivated portions become more sterile, and the peasantry progressively more impoverished. India with its recurrent famines is currently exporting twenty to thirty million quintals of rice. The same holds for Russia. Here, according to the most recent calculation, the peasants produce annually around 1387 m puds of grains (deducting seed). For their own consumption they require 1286 m puds of rye plus 477 m puds as fodder. This leaves a deficit of 376 m puds which the peasants would have to buy. Instead, as we know, they actually sell grain. They have taxes and debts to pay off, and nothing else to sell.

Probably the same factors will compel the peasantry of China to sell rice, regardless of their own needs.

As international competition in the grain market intensifies, European landowners are forced to move into other sectors such as milk and meat where the smaller holdings are better able to defend themselves. When competition in that market first developed, England was the worst hit. Realising that tariffs were out, the English landowners faced the following alternatives—either imminent bankruptcy or changes in productive organisation. They chose the latter course, and the net income of landed property declined sharply between 1875 and 1894 as rents fell and their expenditure on the farm increased. Production shifted from cereals to livestock, the acreage under wheat contracted and the domestic supply of wheat was halved. But world competition chased them into their new sectors of production. Some twenty years ago practically the whole of England's livestock imports came from Europe; today the dominant suppliers are the U.S. and Canada. As sharpening competition lowered the price of raw materials and forced ground rent down, landowners tried to convert these losses into industrial profits by utilising the raw materials directly in a process of manufacture. Breweries, sugar factories, starchworks, distilleries began to fill the landscape. Stimulated by the example of the biggest landowners, the peasants came together in cooperative associations for the production of milk, bread, flour and so on.

But international competition does not spare these new industries. Take dairy production which has expanded rapidly in the recent period. The declining profitability of cereals production induces a rapid growth of dairy production in most of the European countries, particularly Denmark (butter), and outside Europe, e.g. Canada (cheese) or Australia (butter), (where export subsidies play a supporting role). Danish and Australian butter have been rapidly displacing German butter from the English market, but the German dairy producers have been behaving as if the larger the number of competitors the more lucrative the industry. Long before the dairy cooperatives can have a substantial impact on the incomes of the German peasantry, the industry will plunge into a crisis of overproduction, compelling the members of the cooperative to sell out to bigger capitalists, and reducing the peasants to wage workers in a capitalist factory. Such cooperatives revolutionise agriculture, but they are no solution for the peasantry. Agroindustries are subject to the laws of concentration and centralisation, to scale economies and the law on increasing firm size (cf. the example of Nestle), like other industries. Where this industrialisation of agriculture does not entirely eliminate the smallholder, it binds

him to the monopsonist power of the factory and converts him into a serf of industrial capital, working to its requirements. The domination of agriculture by industry which these examples signify is carried further, finally, by the more and more efficient utilisation of raw materials, including the recycling of waste products, and by the production of synthetic substitutes (margarine, artificial cheese) which compete directly with the natural products (cf. the fate of the European wine industry before the double assault of artificial wine and colonial competition).

We cannot say that agriculture has been ruined under these pressures. But its conservative character has gone forever wherever the modern mode of production has taken root. The entire economic life of the countryside which revolved eternally in the same orbits has today fallen into a state of perpetual revolution which is a necessary feature of capitalism.

### Conclusion

Bourgeois economists are basically concerned about the relations obtaining between big and small farms from the point of view of their size. As the relations at this level hardly change at all, they attribute to agriculture a conservative character. On the other side, the popular socialist conception sees the revolutionary element in usury, indebtedness, and the peasant's alienation of his property. We hope we have shown that the former view is inaccurate. Now we want to show that we cannot accept the latter without qualification.

Peasant indebtedness is not a phenomenon peculiar to capitalism. It is as old as commodity production and is known from the history of Greece and Rome. On its own usury capital can only inspire the peasantry with rebelliousness; it cannot become the basis for the transition to a higher mode of production. Only under capitalism where the possession of larger sums of money makes production on a large scale possible and usury takes the form of credit, does it extend the sphere of action of capital and hasten economic development. In agriculture, however, it retains in large degree its precapitalist character: the indebtedness of the peasant, in this sense, is not only not revolutionary, but it is conservative; it is not a factor which forces the transition from one mode of production to another, but one which preserves peasant production in its current state.

In the countryside debt is a conservative factor both vis-à-vis the mode of production and often also vis-à-vis property relations. Of course, where a new mode of production appears which disrupts peasant property, indebtedness can serve to hasten its expropriation. This is exactly what happened in Rome when a sudden increase in the supply of slaves favoured the growth of a plantation system<sup>9</sup>;

this is also basically what happened in England during the Reformation when the expansion of trade in wool promoted the development of sheep estates. But in these instances the debt was only a lever of expropriation, not its motor force: for example, in south Germany during the Reformation ownership of land changed hands, but cultivation proceeded on the same basis. Here usury

impoverished the peasantry but left its size intact.

In the present conjuncture, with the profitability of agriculture declining as a result of world competition, and the current stagnation and incipient decline of prices and rents, usury capital shows less and less interest in expropriating the indebted peasantry; if the property is auctioned, it stands to lose not only its interest but a part of its capital too. Far from hastening the process, it is therefore attempting to postpone it by granting arrears in payment and even advancing new loans—just as the worst landlords in England are compelled to grant arrears on the payment of rent, to lower rent rates and take on the costs of improvement. In a recent enquiry, the landowner Winkelmann of Wesphalia states: 'many usurers in this part of the country are finding it more to their advantage to get the peasant to work for them and to take from him the whole produce of his labour excepting his subsistence, than to auction his property when the gains are uncertain'. Thus the indebtedness of the peasantry does not always signify a revolution in the conditions of rural property. Where, then, should we look for the motor force behind the transformation of its mode of production? The answer is implicit in the whole of our analysis above. Industry forms the motor force not only of its own development, but also of the development of agriculture. It was urban industry that smashed the unity of industry and agriculture in the countryside, that converted the peasant into a pure agriculturist, a commodity producer tied to an unknown market, that established the possibility of his proletarianisation. The agriculture of the feudal epoch ended in an impasse, from which it could not escape through its own dynamism. It was urban industry that generated the revolutionary forces that were bound to, and could, break down the feudal regime and open a new path of development for itself and agriculture. It was industry, moreover, that produced the scientific and technical conditions of the new agriculture, that revolutionised it with machinery and chemical fertiliser and established the dominance of large capitalist holdings over the small peasant exploitation. But while it established a qualitative difference between these forms of exploitation, it established another difference too—the difference between holdings producing purely for household subsistence and holdings producing chiefly for the market. Both types were subordinated to industry, but in different ways. It compelled the first type to earn cash by the

sale of its labour power and thus reinforced the dependence of the small peasant on industry and brought his situation closer to that of the factory working class. But the commercial farms were likewise compelled to seek out extra sources of income in industry. Reduction of costs is inherent in the nature of technical progress, but in capitalist agriculture this tendency is more than paralysed by opposing tendencies which impose ever increasing burdens: the expansion of ground rent and tenancy rates or interest rates, the expansion of mortgages, the parcellisation of property through rights of succession, the intensified exploitation of the countryside by the town, devastation of the soil, the recurrence of plant and animal diseases, and finally the increasing absorption of the rural working class into industry-all of which combine to increase costs of production in agriculture. Initially this leads to an inflation of agricultural prices and an intensified antagonism of town and country. But the same line of evolution which engenders this situation transforms it further by its development of international relations and world competition. Either the landowners retreat and the antagonism of town and country abates, or the landowners compel the State to raise tariff walls, and the antagonism intensifies further. To adapt to the new conditions of competition, agriculture adopts the most varied methods of production only to find its most rational goal in its alliance with industry.

In each of these forms—the small peasant's conversion into a factory worker and the big agriculturist's investment in industry—the modern mode of production thus returns, at the end of its dialectical process, to its original point of departure, to a suppression of the separation of industry and agriculture. But if on the primitive peasant exploitation agriculture was the decisive economic element, now the relation is reversed. Now it is big capitalist industry that predominates, and agriculture that tails behind, adapting to its requirements.

In this society, dominated by capitalism, pure agriculture is no longer a factor of well being. For the peasantry there is no chance of recovering its golden age. It has arrived at an impasse from which it cannot escape through its own reserves. As at the close of the eighteenth century, its emancipation devolves again on the revolutionary masses of the town, who alone can open for it a path for further development. Capitalism concentrates the working masses in the towns, creates the conditions favouring their organisation, their intellectual development, their capacity to struggle as a class. It depopulates the countryside, disperses rural workers over vast distances, isolates them, deprives them of any means of intellectual development and resistance to exploitation. In the towns it concentrates capital in an ever narrowing circle, in

agriculture the concentration of holdings remains partial and combined with fragmentation. In its progress the capitalist mode of production converts industry, sooner or later, into an export industry producing for the world market, because the home market has begun to fail it. As this tendency progresses pure agriculture becomes a form of production of declining importance even in the home market, whose own weight is progressively shrinking before the dominance of world economy.

Human society is an organism, different from those of the animal or the plant, but an organism none the less. It is absurd to think that in any society one part can develop in one direction, and another in some other direction. Society can follow only one line of development. But it does not follow that each part of this organism should contain within itself the life force of its own growth; it is enough that one portion of the organism produces the forces necessary to sustain the whole of it. If large scale industry is progressing towards socialism and if large scale industry is the dominant power in modern society, this line of evolution will win for socialism other domains not capable, on their own, of creating the conditions for this revolution. It must do so, in its own interests, in the interests of the unity and harmony of society.

#### Notes

<sup>\*</sup>Based on the French translation La Question agraire, Maspero 1970. Page references in this summary refer to this edition.

<sup>1.</sup> We translate 'feudal-capitalist', where the French say feodale et capitaliste, because Kautsky is clearly referring to the specific transitional system, combining feudal and capitalist relations, which he has just mentioned in the previous sentence. It is worth considering the implications of this image of surplus value being produced out of feudally-subjected labour.

<sup>2.</sup> Kautsky allows for the suspension of the law of value under conditions of monopoly, citing the example of Johannesburg wine. 'The law of value presupposes free competition' (p.88).

<sup>3.</sup> The sections which follow need not be summarised, as Kautsky's argument here, as in the section on differential rent, follows closely on Marx, Capital, Volume 3, Ch. XLV, which should therefore be read.

<sup>4.</sup> The rest of the chapter deals with the determination of the price of land, the differences between land and capital, the role of credit and the expansion of the mortgage system. It has not been summarised here.

<sup>5.</sup> Kautsky obviously means 'productivity of labour', not productivity per unit of cultivated land, as that was the accepted meaning in his time.

<sup>6.</sup> Kautsky now goes on to deal with 'cooperative societies' arguing (a) that these have been mainly confined to credit and commerce, (b) they are dominated by landowners and big peasants, (c) that they face obstacles inherent in the nature of small scale exploitation (e.g., marketing cooperatives which have to deal with a large number of small peasants have almost everywhere failed), (d) that production cooperatives are not liked by peasants because of

their 'fanaticism for property' (p.193) and that only under the guidance of the victorious working class will cooperation in production have any chance of success: 'the peasant will come to realise that individual ownership of the means of production is an obstacle to more rational modes of cultivation only when he ceases to regard with fear the prospect of becoming a proletarian, i.e., once the socialist cooperatives have demonstrated their vitality and eliminated the risks which today threaten every economic enterprise. On the other hand, it is utopian to expect the peasant to pass over to cooperative production under capitalism . . .' (p.195).

Jarius Banaji

7. It should be noted that the whole of the interpretation which follows in this paragraph belongs to underconsumptionism, vigorously combated at that time only by Lenin. For a modern critique, cf. David Yaffe, 'The Marxian theory of crisis, capital and the state', *Economy and Society*, Vol. Two, May 1973,

pp.186f.

8. Again, it should be kept in mind when reading this paragraph how little the European Marxists of the generation of Engels and Kautsky actually knew about conditions in the colonies and semi-colonies. Access to information was limited, which is perhaps the main reason why neither Marx nor Lenin nor Kautsky ever took up the 'colonial question' on a systematic theoretical basis, and why the 'Asiatic mode of production' remains among the most nebulous and scientifically weak concepts in Marx. The paragraph which follows is of an entirely different nature: it contains the insight that competition in the world market takes place on the basis of an articulation of modes of production, including simple commodity production subjugated to the power of capital (under different forms).

9. By 'plantation' here Kautsky means not the type of enterprise which prevailed in the tropics under colonialism, but integrated estates closer to what he understood by the word *latifundium* (literally 'large farm').